



MICROTECH



# SUB-MICRON INTELLIGENT COMPUTERIZED INDICATOR

## USER MANUAL



Calibration ISO 17025:2017

ISO 9001  
BUREAU VERITAS  
Certification



ISO 9001:2015

LAB COMPUTERIZED INDICATOR **WIRELESS**

| Item No   | Range  |        | Resolution |          | Accuracy | Hysteresis | Measuring Force | Protection class | Indication                                               | Data output | Calibration |
|-----------|--------|--------|------------|----------|----------|------------|-----------------|------------------|----------------------------------------------------------|-------------|-------------|
|           | mm     | inch   | mm         | inch     | μm       | μm         | N               |                  |                                                          | Wireless    | ISO 17025   |
| 120129138 | 0-12,5 | 0-0,5" | 0,0001     | 0,00001" | ±1,6     | 0,5        | 1,3-2,0         | IP54             | computerized<br>MICS system<br>with 1,54"<br>touchscreen | max 50m     | +           |
| 120129139 |        |        |            |          | ±1,2     | 0,5        | 1,3-2,0         | IP54             |                                                          | max 50m     | +           |
| 120129258 | 0-25,4 | 0-1"   |            |          | ±2,0     | 0,5        | 1,3-2,0         | IP54             |                                                          | max 50m     | +           |
| 120129259 |        |        |            |          | ±1,6     | 0,5        | 1,3-2,0         | IP54             |                                                          | max 50m     | +           |
| 120129508 | 0-50,8 | 0-2"   |            |          | ±3,0     | 0,5        | 1,3-2,0         | IP54             |                                                          | max 50m     | +           |
| 120129509 |        |        |            |          | ±2,2     | 0,5        | 1,3-2,0         | IP54             |                                                          | max 50m     | +           |

SUB-MICRON COMPUTERIZED INDICATOR **WIRELESS**

| Item No   | Range  |        | Resolution |          | Accuracy | Hysteresis | Measuring Force | Protection class | Indication                                                      | Data output | Calibration |
|-----------|--------|--------|------------|----------|----------|------------|-----------------|------------------|-----------------------------------------------------------------|-------------|-------------|
|           | mm     | inch   | mm         | inch     | μm       | μm         | N               |                  |                                                                 | Wireless    | ISO 17025   |
| 120129132 | 0-12,5 | 0-0,5" | 0,0001     | 0,00001" | ±7       | 0,5        | 1,3-2,0         | IP54             | computerized<br><br>MICS<br>system<br>with 1,54"<br>touchscreen | max 50m     | +           |
| 120129133 |        |        |            |          | ±5       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129135 |        |        |            |          | ±3       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129137 |        |        |            |          | ±2       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129252 | 0-25,4 | 0-1"   |            |          | ±8       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129253 |        |        |            |          | ±5       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129257 |        |        |            |          | ±3       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129503 | 0-50,8 | 0-2"   |            |          | ±10      | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129507 |        |        |            |          | ±4       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129903 | 0-100  | 0-4"   |            |          | ±15      | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |
| 120129907 |        |        |            |          | ±5       | 0,5        | 1,3-2,0         | IP54             |                                                                 | max 50m     | +           |



Free Software for Windows, Android, iOS

**max 50 m**

data transfer distance

Multifunctional button

**0.1 $\mu\text{m}$** **MICS** indication system  
hi-res colour Touchscreen



| Parameters             |                                 |
|------------------------|---------------------------------|
| LED display            | color 1,54 inch                 |
| Resolution             | 240x240                         |
| Indication system      | MICS 3.0                        |
| Power supply           | Rechargeable Li-Pol battery     |
| Battery capacity       | 450-800 mAh (depends of device) |
| Charging port          | micro-USB                       |
| Case material          | Aluminium                       |
| Buttons                | Switch (Multifuntional), Reset  |
| Wireless data transfer | up to 50m on open area          |

## CHARGING



**BUILT-IN BATTERY** - rechargeable Li-Pol battery

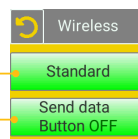
For charging connect USB cable  
Charging process indicating  
on Battery status  
(switch on device)



Activate WIRELESS data transfer in WIRELESS menu

Switch on Wireless data transmission

Activating multifunctional button to save value to memory or send data by touchscreen or button push



Connect instrument with **MICS** indication system to Tablet or PC

Send data to Tablet or PC:

- by Touchscreen
- by Multifunctional button push (activated in Wireless menu)
- by Timer (activated in Timer menu)
- from Internal Memory

## MEMORY

For save measuring data to internal caliper's memory touch data area on screen or short button push. You can view saved data through menu or send Wireless connection to Windows PC, Android or iOS devices.

Basic STATISTIC functions:

MAX - maximum saved value

MIN - minimum saved value

AVG - average value

D - variance VAR(x)

|      | Statistic |
|------|-----------|
| MAX: | +26.999   |
| MIN: | 8.8673    |
| AVG: | +5.3213   |
| D:   | +26.863   |

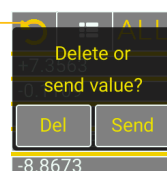
Saved values

Each value can be Deleted or Send to application

|          | ALL |
|----------|-----|
| +7.3563  |     |
| -0.1109  |     |
| +1.2293  |     |
| +26.9993 |     |
| -8.8673  |     |

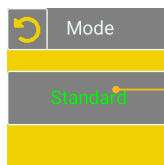
Button ALL select all values

All values can be Deleted or Send to application



## MEMORY settings

Memory sub-menu



Selecting Standard mode or No saving data to internal memory



**WIRELESS CONNECTION**



**USB-DONGLE**

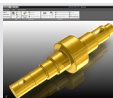


**Windows**

**DOWNLOAD**



**SAVING DATA  
TO XLS. CSV  
FORMATS**



**TRANSFER DATA TO  
CAD, SPC OR OTHER  
SOFTWARE**



**TRANSFER DATA TO  
EXCEL OR OTHER  
TABLE EDITORS**



**iOS**

**DOWNLOAD**



**SAVING DATA  
TO XLS. CSV  
FORMATS**



**SAVING  
GRAPH**



**VOICE  
MODE**



**ANDROID**

**DOWNLOAD**



**SAVING DATA  
TO XLS. CSV  
FORMATS**



**SAVING  
GRAPH**



**VOICE  
MODE**



**QUALITY  
CONTROL  
RESULTS**

## DATA TRANSFER DISTANCE FOR INTELLIGENT INSTRUMENTS

- All MICROTECH Intelligent instruments have internal memory. You can collect data to memory and when it will be necessary transfer all data to the peripheral device with no data losing.
- It's possible to transfer data, like in Wireless instruments up to 15 m or up to 50 m with external antenna
- USB port can be used to transfer data directly to Windows PC

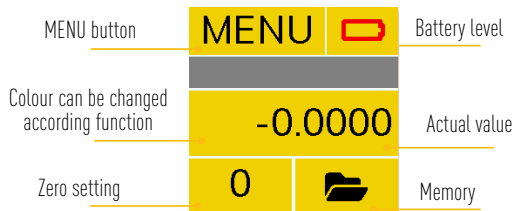


MICROTECH

# MENU NAVIGATION



USE TOUCHSCREEN TO OPERATE MENU



## MEMORY WITH STATISTIC

| ALL      | Statistic    |
|----------|--------------|
| +7.3563  | MAX: +26.999 |
| -0.1109  | MIN: 8.8673  |
| +1.2293  | AVG: +5.3213 |
| +26.9993 | D: +26.863   |
| -8.8673  |              |

## MENU CONFIGURATION



MAIN MENU



**LIMITS**  
color Go/NoGo



**MAX/MIN**  
indicating max or min value



**FORMULA MODE**  
 $Ax^2+Bx+C$



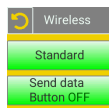
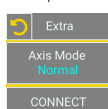
**ERROR COMPENSATION**  
mathematical correction



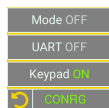
**TEMPERATURE COMPENSATION**  
manual correction



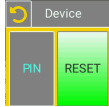
**RESOLUTION**  
selected up to 0.0001mm



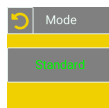
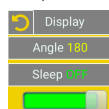
**WIRELESS**  
modes of data transmission



**USB**  
USB connection configuration



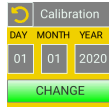
**DEVICE SETTING**  
pin, reset



**MEMORY SETTING**



**SOFTWARE**  
link to download app



**CALIBRATION DATE**







LIMITS GO/NOGO

MENU SETTING

 +000.000

MAX value

+000.000 

MIN value

 RANGE 

zero values

Colour indication limits

MAX - NoGo more MAX value

MIN - NoGo less MIN value

RANGE - Go between MIN & MAX

NONE - disactivating mode

MAIN SCREEN INDICATION

MENU 



-10.005

+8.0608

0 

0 mm

NoGoGo



MAX/MIN

MENU SETTING

 Max/Min

Enable

MAX 

Indication and saving MAX or MIN values

ENABLE - activating mode

MAX - indicating MAX measured value

MIN - indicating MIN measured value

MAIN SCREEN INDICATION

MENU 



-2.9184

7.2241

0 

0 

MINMAX



FORMULA

MENU SETTING

 Formula

Formula:

AX+BX+C

AX<sup>2</sup>+BX+C

Set Argv

FORMULA  $Ax^2+Bx+C$

A +000.000

B +001.000

C +000.000

 RESET

Long push digit to select value

Reset to zero arguments

EXAMPLE OF FORMULA USING

Standard measuring

PRESET 50mm

Value magnification x3

Square value

A=0, B=1, C=0

A=0, B=1, C=50

A=0, B=3, C=0

A=1, B=0, C=0



TIMER

MENU SETTING

 Timer

+000 sec.

RESET

Saving data to memory or sending Wireless by Timer

Select timer period

Reset to disactivate mode

Timer

Confirm

reset?

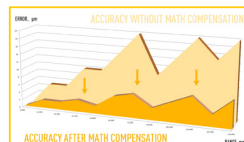
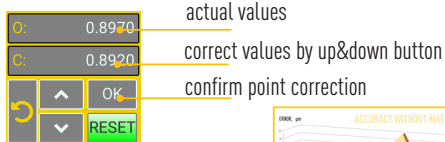
Yes No



## MATHEMATICAL ERROR COMPENSATION

## MENU SETTING

Mathematical correction points with big error to normal values



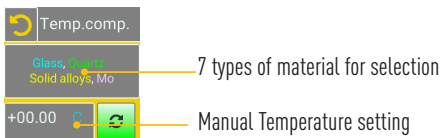
use gauge blocks or measuring machine for points correction



## TEMPERATURE COMPENSATION

## MENU SETTING

Re-calculation detail size to calibration conditions (20°C)



7 types of material:

- glass, quartz, solid alloys
- granite, graphite
- Fe, Ni, Fe alloys
- stainless steel
- cooper, Cu alloys
- aluminium, al alloys
- acrylic sheet



## RESOLUTION

## MENU SETTING



## MAIN SCREEN INDICATION

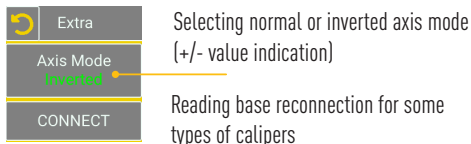
**+8.0608**

Selecting resolution of value on main screen and memory



## EXTRA (Axis mode)

## MENU SETTING



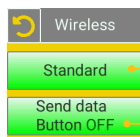




## WIRELESS CONNECTION

### MENU SETTING

Activating or disactivating wireless data transfer



Switch on Wireless data transmission

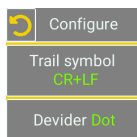
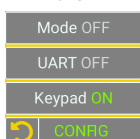
Activating multifunctional button to save value to memory or send data by touchscreeb ur button push



## USB CONNECTION

### MENU SETTING

USB connection mode under construction

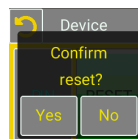
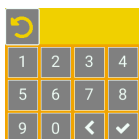
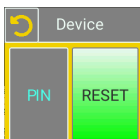


## PIN & RESET

### MENU SETTING

Activating PIN to device setting

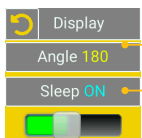
RESET to factory settings



## DISPLAY SETTING

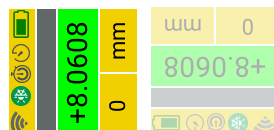
### MENU SETTING

DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE



Display rotation 0°, 90°, 180°, 270°

- Sleep OFF (15 s low brightness off, sleep off)
- Sleep 15s (15 s low brightness on, sleep off)
- Sleep ON (15 s low brightness on, sleep on)

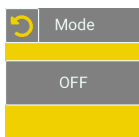
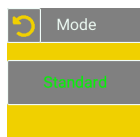




## MEMORY SETTINGS

## MENU SETTING

Activating or disactivating saving values to memory



**Standard** - saving values to memory  
**OFF** - disable saving to memory

|      |          |
|------|----------|
| Mode | ALL      |
| +    | +7.3563  |
| -    | -0.1109  |
| +    | +1.2293  |
| +    | +26.9993 |
| -    | -8.8673  |

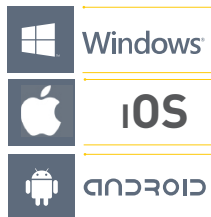


## LINK TO SOFTWARE

## MENU SETTING



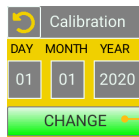
QR Link to MICROTECH web site page  
with MDS Software download  
- Android, iOS, Windows versions  
- Free and Pro versions  
- Manuals



## CALIBRATION DATE

## MENU SETTING

Calibration date info



Push for change date info

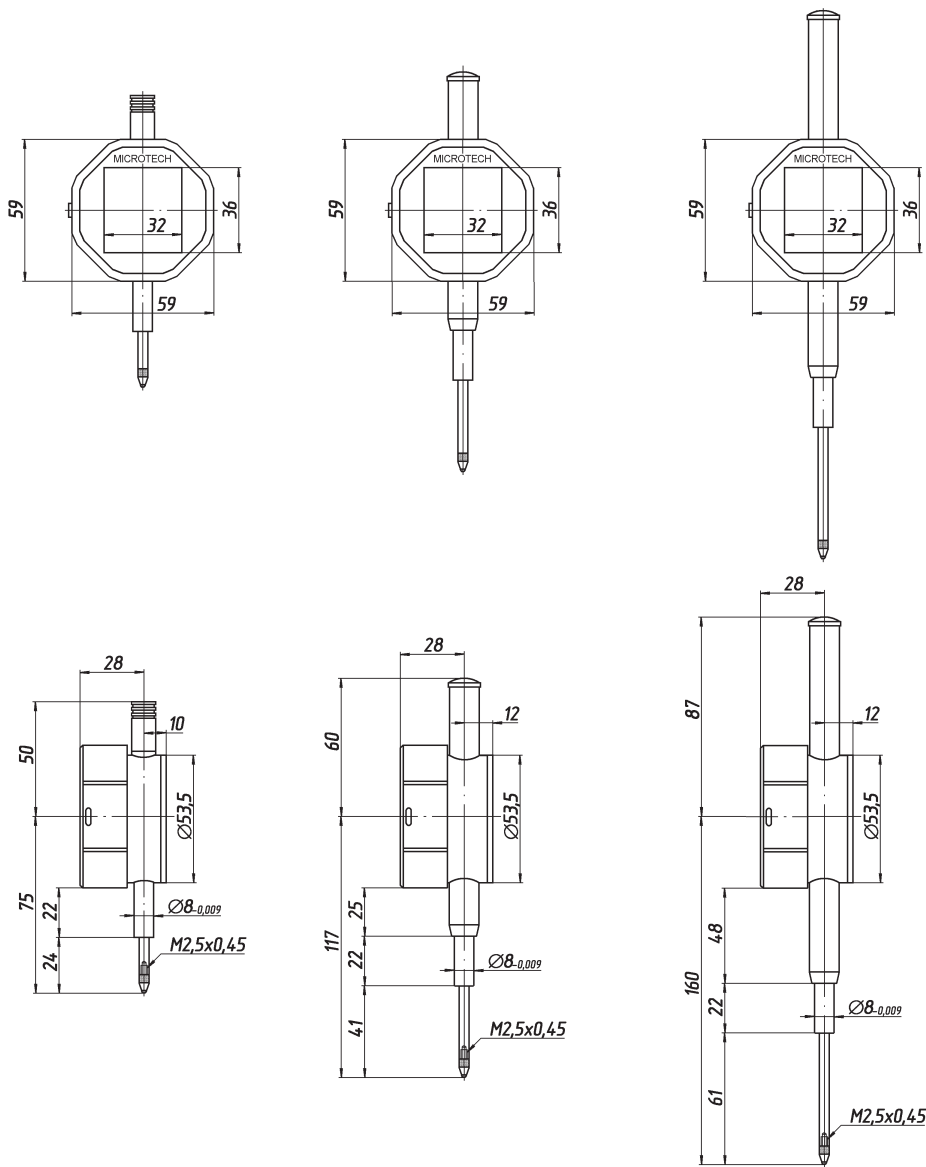


## DEVICE INFO

## MENU SETTING



Information about device  
- device name  
- firmware version  
- MAC adress for easy connection





**MICROTECH**

**MICROTECH**

innovative measuring instruments

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Change without prior notice